

Exception Handlers

File **ScanInts.java** is a program that contains a **do while** loop that does the following:

- * Read in a string.
- * If the length of the string is > 0 , convert the string to an integer using **Integer.parseInt**.
- * Add the integer to sum.

After the user enters an empty string as input, the loop stops and the program displays the sum of the integers.

Save **ScanInts.java** to C:\temp and compile and run it. If you give it the input

```
10
20
30
40
```

it should print

```
The sum of the integers is 100.
```

Try some other inputs as well.

Now try a line that contains both integers and a non-numeric value such as

```
10
2
xyz
```

You should get a **NumberFormatException** when the program tries to call **Integer.parseInt** on "xyz". One way around this is to put the **do while** loop inside a **try**, and **catch** the **NumberFormatException** but not do anything with it. This way if it is not an integer it does not cause an error; it goes to the exception handler, which does nothing. Do this as follows:

- * Modify the program to add a **try** statement that encompasses the entire **do while** loop. The **try** and “{ “ should go before the **do** and the “} “ after the **while**. Catch a **NumberFormatException**, and have an empty body for the **catch**.
- * Compile and run the program, and enter some integers and then a non-numeric value. You should find that it stops at the first non-integer. However the problem is that since the entire loop is inside the **try**, when an exception is thrown the loop is terminated. To fix this, move the **try** and **catch** inside the **do while** loop . Now when an exception is thrown, the next statement is the next iteration of the loop, so the next input is processed.